

~~the amount of taper measured from a plane on the periphery of said body along said axis and on to the bottom of said surface to be sputtered being~~

$$0.22 r_1 \leq d_0 \leq 0.38 r_1$$

~~wherein: r_1 is the radius of the circular target body
 d_0 is said amount of taper.~~

New Math
35. The target body according to claim ³⁴~~34~~ wherein there is valid

$$50 \text{ mm} \leq 2 r_1 \leq 150 \text{ mm}$$

Circular target

36. The ~~body~~ according to claim 35 wherein there is valid

$$75 \text{ mm} \leq 2 r_1 \leq 150 \text{ mm}$$

SubCat
37. ~~The body according to claim 34 wherein the thickness of the body along periphery, d_a is~~

$$d_a \approx 0.5 r_1$$

New Math
38. A receiving ring for receiving a circular disc to be sputter-coated in a sputtering chamber comprising:

a central circular opening with a diameter (ϕ_{13}) - adjacent to said opening a first ring segment with a radial width (Δ) and being tapered by an amount (a)

radially outwards from said first ring segment a second ring segment being flat substantially along a plane perpendicularly to the symmetry axis of said receiving ring through said opening;

the following relation
wherein there is valid:

$$\Delta \leq 20\% \phi_{13}$$

thereby preferably

$$\Delta \leq 10\% \phi_{13}$$

and most preferably

$$\Delta = 15\% \phi_{13}$$

and wherein there is further valid:

$$0.12 r_{13} \leq a \leq r_3$$

and preferably

$$0.12 r_{13} \leq a < 0.25 r_{13}$$

and thereby most preferably

$$0.12 r_{13} \leq a \leq 0.56 r_{13}$$

wherein there stands:

Δ for radial extend of the tapered ring segment

ϕ_{13} for the diameter of said center opening

r_{13} for the radius of said center opening

a for the axial extend of that taper of said
tapered ring segment.

39. The receiving ring of claim 38, wherein there is valid

$$50 \text{ mm} \leq \phi_{13} \leq 150 \text{ mm}$$

and preferably

$$75 \text{ mm} \leq \phi_{13} \leq 150 \text{ mm}.$$

40. The receiving ring of claim 38, wherein a transition
from said tapered ring segment to said substantially flat ring
segment is formed by a cylindric surface.

41. The receiving ring of claim 38 wherein said tapered
ring segment is sloped.

42. A set of circular target body and of a circular receiving ring for receiving a circular disc to be sputter-coated from the target body wherein said target body has a surface to be sputtered tapering from its periphery to its center;

said receiving ring comprising a central opening with a diameter ϕ_{13} and adjacent thereto a first tapered ring segment with a radial extend Δ and with a taper extent a and wherein said receiving ring is applicable on top of said target body so that said tapered sputtering surface of said body and said tapered ring segment point towards each other and wherein the center of said target body and a plane across said central opening of said receiving ring define a central distance (d_{113}) wherein there is valid:

$$20\% \phi_{13} \leq d_{113} \leq 50\% \phi_{13}$$

thereby preferably:

$$20\% \phi_{13} \leq d_{113} \leq 42\% \phi_{13}$$

and thereby especially preferred:

$$d_{13} \leq 35\% \phi_{13}$$

and there is further valid for the radial extend of said tapered ring segment of said receiving ring:

$$0 \leq \Delta \leq 20\% \phi_{13}$$

thereby preferably

$$0 \leq \Delta \leq 10\% \phi_{13}$$

and especially

$$\Delta \approx 15\% \phi_{13}$$

and further for the axial extend of taper of said tapered ring segment of said receiving ring:

$$0 \leq a \leq 50\% d_{113}$$

thereby preferably